IN THE CLAIMS:

Please **CANCEL** claims 25-29 without prejudice or disclaimer

Please **AMEND** claims 1, 12, 15, and 20 as follows.

1. (Currently Amended) A communication system, comprising:

a plurality of communication nodes connected by a data link, the data link being a shared data link; and

a communication controller configured to allocate link-level addresses to the communication nodes,

wherein the communication nodes may be identified for communications over the data link, and

wherein the communication controller is further configured to change from time to time the link-level addresses allocated to each communication node and to transmit the newly allocated link-level address to a respective communication node in an encrypted form.

2. (Previously Presented) A communication system as claimed in claim 1, wherein communications over the data link comprise an address part, indicating the address of the one of the communication nodes to which the respective communication is directed, and a payload part.

3. (Original) A communication system as claimed in claim 2, wherein the address part is not encrypted.

4. (Previously Presented) A communication system as claimed in claim 2, wherein the payload part is encrypted.

5. (Previously Presented) A communication system as claimed in claim 1, wherein communications over the data link are in the form of data packets.

6. (Previously Presented) A communication system as claimed in claim 1, wherein the communication system comprises a data distribution unit connected between the data link and at least one external data source, and wherein the data distribution unit is configured to forward data from the data source to the communication nodes via the data link.

7. (Previously Presented) A communication system as claimed in claim 6, wherein the data distribution unit is further configured to forward the data to the communication nodes in a random or pseudo-random order.

8. (Previously Presented) A communication system as claimed in claim 6, wherein the data distribution unit is configured to, when it would otherwise not be

transmitting data to the communication nodes, transmit over the data link communications addressed to a link-level address that is not allocated to any of the communication nodes.

9. (Previously Presented) A communication system as claimed in claim 1, wherein a communication node is configured to store a link-level address allocated to it and to ignore communications on the data link addressed to link-level addresses other than that link-level address.

10. (Previously Presented) A communication system as claimed in claim 1, wherein the data link is an Ethernet link.

11. (Original) A communication system as claimed in claim 10, wherein the link-level addresses are Ethernet PHY ID addresses.

12. (Currently Amended) A method for communicating data in a communication system, the communication system comprising a plurality of communication nodes connected by a data link and a communication controller, the method comprising:

allocating link-level addresses to the communication nodes wherein the communication nodes may be identified for communications over the data link, the data link being a shared data link;

changing from time to time the link-level addresses allocated to each communication node; and

transmitting the newly allocated link-level address to a respective communication node in an encrypted form.

13-14. (Cancelled)

15. (Currently Amended) A communication controller for operating in a communication system comprising a plurality of communication nodes connected by a data link, the communication controller being configured to:

allocate link-level addresses to the plurality of communication nodes, wherein the communication nodes may be identified for communications over the data link, the data link being a shared data link; and

change from time to time the link-level addresses allocated to each communication node and to transmit the newly allocated link-level addresses to a respective communication node in an encrypted form.

16. (Previously Presented) A communication controller as claimed in claim 15, further configured to transmit the newly allocated link-level addresses to the respective node in a communication comprising an address part configured to indicate a current address of the respective node and a payload part comprising the newly allocated addresses in encrypted form.

17. (Previously Presented) A communication controller as claimed in claim 15, further configured to:

allocate encryption keys to each of the plurality of communication nodes; and

change from time to time the encryption key allocated to each of the plurality of communication nodes and transmit the newly allocated encryption key to the respective node in encrypted form.

18. (Previously Presented) A communication controller as claimed in claim 17, further configured to transmit the newly allocated encryption key to the respective node in the payload part that contains a newly allocated address for the respective node.

19. (Previously Presented) A communication controller as claimed in claim 15, further configured to change the link-level addresses allocated to each of the plurality of communication nodes at one of random, pseudo-random, or periodic intervals.

20. (Currently Amended) A method for operating a communication controller in a communication system comprising a plurality of communication nodes connected by a data link, the method comprising:

allocating link-level addresses to the plurality of communication nodes, wherein the communication nodes may be identified for communications over the data link, the data link being a shared data link; and

changing from time to time the link-level addresses allocated to each communication node and transmitting the newly allocated link-level addresses to a respective communication node in an encrypted form.

21. (Previously Presented) A method as claimed in claim 20, wherein the transmitting comprises transmitting the newly allocated link-level addresses to the respective node in a communication comprising an address part configured to indicate a current address of the respective node and a payload part comprising the newly allocated addresses in encrypted form.

22. (Previously Presented) A method as claimed in claim 20, further comprising:

allocating encryption keys to each of the plurality of communication nodes; and

changing from time to time the encryption key allocated to each of the plurality of communication nodes and transmitting the newly allocated encryption key to the respective node in encrypted form.

23. (Previously Presented) A method as claimed in claim 22, wherein the transmitting further comprises transmitting the newly allocated encryption key to the respective node in the payload part that contains a newly allocated address for the respective node.

24. (Previously Presented) A method as claimed in claim 20, wherein the changing comprises changing the link-level addresses allocated to each of the plurality of communication nodes at one of random, pseudo-random, or periodic intervals.

25-29. (Cancelled)